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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,879	02/25/2004	Hamid Partovi	1435.124.101 / 03P51159US	1907
25281 7590 04/06/2007 DICKE, BILLIG & CZAJA, P.L.L.C. FIFTH STREET TOWERS 100 SOUTH FIFTH STREET, SUITE 2250 MINNEAPOLIS, MN 55402			EXAMINER TRAN, KHAI	
			ART UNIT 2611	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/786,879	PARTOVI ET AL.	
	Examiner	Art Unit	
	KHAI TRAN	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-21 is/are allowed.
- 6) ☒ Claim(s) 1,5 and 22-28 is/are rejected.
- 7) ☒ Claim(s) 2-4,6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2 sheets</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 5, 22-23, 25-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Aung et al (US 2003/0212939 A1).

Regarding claim 25, Aung et al disclose a serial data transceiver apparatus, comprising: means for deserializing (60) an input serial data stream (Figure 1); means for converting parallel data (see Figure 7, a serializer 340) into output serial data stream based on a transmit serialization clock signal; means for producing the transmit serialization clock signal by applying a CDR (a CDR 50) operation to a clock source signal (a reference clock signal source 22).

Regarding claim 26, Aung et al disclose a receive data input for receiving an input serial data stream (a receiver 40); a clock and data recovery (CDR) circuit (50) coupled to the receive data input for recovering a receive clock signal from the input serial data stream; a data serializer (340) for converting parallel data into an output serial data stream, the data serializer having a clock input for receiving a transmit serialization clock signal (from a PLL 100), the data serializer (340) for producing the

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output serial data stream based on the transmit serialization clock signal; a clock synthesizer apparatus (a reference clock signal source 22) coupled to the clock input for providing the transmit serialization clock signal; the CDR circuit (50) and clock synthesizer having respective PLL clock inputs, each the PLL clock input for receiving first and second PLL clocks (see Figure 7 shows the PLL circuit having two clock output signals; a PLL (100) having an output for providing the first and second PLL clocks, the CDR circuit and the synthesizer apparatus (22) each having said PLL clock input thereof coupled to the PLL output for receiving the first and second PLL clocks.

Claims 27-28 are similar to claim 25. Therefore, claims 27-28 are rejected under a similar rationale.

Claims 22-23 are similar to claim 25. Therefore, claims 22-23 are rejected under a similar rationale.

Claims 1, 5 are similar to claims 25-26. Aung et al further disclose a clock source input for receiving a clock source signal having a fixed transition density (see [0036], a reference clock signal source 22 can produce a reference clock signal having the same frequency as the clock frequency embedded in the CDR data signal or any convenient fraction or multiple of the embedded frequency). Therefore, claims 1, 5 are rejected under a similar rationale.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aung et al in view of the admitted prior art.

Regarding claim 24, Aung et al fail to disclose a step of filtering the clock source signal in the digital domain. However; the admitted prior art discloses that the noisy external clock source typically cleaned up by applying thereto a narrow-band filtering operation (page 2, lines 6-8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to filter the clock source signal as taught by the admitted prior art into the teachings of Aung et al in order filter out unwanted noise.

Allowable Subject Matter

5. Claims 8-21 are allowed.
6. Claims 2-4, 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter: Aung et al fail to disclose or suggest that a clock synthesizer comprising a second CDR circuit having a serial data input, said second CDR circuit operable when a serial data stream is applied thereto via said serial data input for recovering a clock signal from the serial data stream, said clock synthesizer apparatus including a clock source input for receiving a clock source signal, said clock source input coupled to said serial data input for applying said clock source signal to said second CDR circuit, said second CDR circuit responsive to said clock source signal for producing said transmit

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serialization clock signal; and a transmit data output coupled to said data serializer for transmitting said output serial data stream.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bonneau et al (US 2004/0243899 a1) disclose a serializer/deserializer circuit.

Christensen (US 2005/0052189 A1) discloses techniques to test transmitted signal integrity.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAL TRAN whose telephone number is (571) 272-3019. The examiner can normally be reached on 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAY PATEL can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



KHAI TRAN
Primary Examiner
Art Unit 2611

KT
April 4, 2007